REMARKS

Upon entry of the instant amendment, Claims 4, 5, and 9-17 are pending. Various claims were amended to overcome the claim objections set forth in paragraph 2 of the Official Action.

Claims 4-5, and 9-17 have been objected to because of the use of capital letters (e.g., "Differentiated Service") when not used as acronyms. The claims have been amended to provide acronyms or remove capitalization, except where the capitalization reflects common usage (e.g., Internet, Ethernet).

Claims 4-7 and 91-17 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. In particular, the use of "a second byte" was alleged to be unclear "because no first byte has been recited and therefore is not clear as to where is the first byte." Applicants respectfully submit that the claims recite "*a* second byte *in an IP [or Internet Protocol] header* at an IP layer." Thus it is clear that the second byte is the second byte in an IP header. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection.

Claims 11-17 have been rejected under 35 U.S.C. §102 as being Anticipated by Jorgensen, U.S. Patent Publication No. 2002/0099854 ("Jorgensen"). In order for there to be anticipation, each and every element of the claimed invention must be present in a single prior reference. Applicants respectfully submit that the claimed invention is not taught, suggested, or implied by Jorgensen.

As discussed in the Background, several approaches to QoS in IP networks have employed the Type of Service (TOS) byte, i.e., the second byte, in the IP header. The TOS field is an eight-bit field that signals to routers in the network a priority of handling as well as parameters related to delay, throughput, cost, and reliability. Because the TOS field itself had not been widely used, in certain implementations, it has been recast as a "differentiated service" (DS) byte, which is used to indicate to routers the per-hop behavior expected at the node. These approaches, however, do not in themselves provide a Quality of Service. Other protocols, such as the Resource Reservation Protocol (RSVP) or IEEE 802.1p, are required to implement actual Quality

of Service features. Even when the TOS/DS bits are used with such protocols, Quality of Service is not necessarily guaranteed network-wide. As such, telephony vendors have been developing "Quality of Service Ethernet" (QoSEthernet), which lies between the IP layer and the Ethernet layer in the protocol stack and which provides a guaranteed QoS.

In practice, implementation of the QoSEthernet layer requires modified application programs in order to provide the required QoSEthernet information at call setup. That is, each application program(s) must be modified, or replaced, to provide one or more commands in addition to standard H.323 commands in order to invoke the required QoS. Thus, to support QoSEthernet, a user must not only implement a QoSEthernet layer but also change applications programs, such as telephone, fax, and the like. Further, each application program requires setup and configuration, which can cause added costs and delays in implementation.

Thus, according to one implementation of the present invention, existing software sets TOS bits during IP encapsulation. A Generate QoSEthernet layer receives the TOS bits and translates them into a form compatible with the QoSEthernet requirements. In a particular implementation, the Generate QoSEthernet layer is embodied in an H.323 Recommendation telecommunication system. According to one implementation of the invention, one or more telephony application programs are provided, along with an H.323 Recommendation stack, an IP layer, and modular Generate QoSEthernet and QoSEthernet layers. Either the Generate QoSEthernet layer or the QoSEthernet layer may be replaced or modified without necessarily having to modify the H.323 Recommendation stack and application program(s).

In contrast, Jorgensen does not appear to have anything to do with either a Quality of Service Ethernet layer or a Generate Quality of Service Ethernet layer, as generally recited in the claims at issue. Instead, Jorgensen simply appears to provide an enhanced RSVP (see, e.g., para. 0329 ("The present invention supports RSVP...)) based on "header" information (see, e.g., para. 0119) at the network layer. These do not, however, appear to relate to interposing a Quality of Service Ethernet layer in a

protocol stack or a Generate Quality of Service Ethernet layer is the protocol stack between the IP layer and the Quality of Service Ethernet layer.

Further, Jorgensen does not appear to be "modular" as generally recited in the claims at issue. In particular, at para. 0151, Jorgensen indicates that "information about the IP streams is communicated 'vertically' in the protocol stack model from the application layer (i.e., OSI level 7) to the PRIMMA MAC layer (i.e., OSI level 2) for bandwidth reservation and application switching purposes. [This] limit[s] the degree of interchangeability for individual layers of the stack..."

Thus, if anything, Jorgensen teaches away from the present invention, which provides for modularity in a Quality of Service Ethernet. As such, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims.

For all of the above reasons, Applicants respectfully submit that the application is in condition for allowance, which allowance is earnestly solicited.

Respectfully requested,

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